REMARKS

The above-captioned application claims priority under 35 U.S.C. § 120 to United States Application Serial No. 08/468,190, filed June 6, 1995, which claims priority to United States Application Serial No. 08/410,121, filed March 23, 1995, which in turn claims priority to United States Application Serial No. 08/126,597, filed September 24, 1993.

Claims 39-43 and 45-50 (as renumbered by the Examiner in paper number 6) are pending in this application. Claims 1-38 and 44 have been canceled. Claims 39-43 and 45-50 stand rejected. Claims 39, 42 and 45-50 have been amended.

Enclosed with this amendment and response is a marked-up version showing changes made to the claims by the present amendment; deletions are shown in brackets, while additions are underlined. The enclosed two pages are captioned "Version With Markings To Show Changes Made".

Information Disclosure Statement

The Examiner has requested that applicants provide the ten documents listed in section 4 of the Office Action dated October 22, 2002. Applicants provide said documents with this amendment and response.

Rejections under 35 U.S.C. § 112, First Paragraph

Claims 39-43 and 45-50 stand rejected under 35 U.S.C. § 112, first paragraph, for both lack of enablement and lack of adequate written description. Specifically, the Examiner stated that the specification is enabling for an isolated nucleic acid encoding an ILTV gD polypeptide having the amino acid sequence defined by SEQ ID NO: 11, but is not enabling for nucleic acids that encode any ILTV gDs. In addition, the Examiner stated that the specification provides adequate written description for nucleic acids encoding an ILTV gD

polypeptide having the amino acid sequence defined by SEQ ID NO: 11, but does not provide adequate written description for any nucleic acids encoding any ILTV gD proteins.

In order to expedite prosecution of the instant application, applicants have amended independent claims 39 and 45. As amended, claims 39 and 45, and the claims that depend therefrom, are directed to nucleic acids that encode an ILTV glycoprotein D comprising the amino acid sequence of SEQ ID NO: 11. Applicants believe the amended claims address the Examiner's concerns as they now recite a specific ILTV glycoprotein D amino acid sequence that is disclosed in applicants' specification.

Applicants submit that claims 39 and 45, as amended, and the claims that depend therefrom, satisfy the requirements of 35 U.S.C. § 112, first paragraph. Support for the amended claims can be found on pages 50, 114-117 and elsewhere in the specification. Therefore no new matter has been added. Accordingly, withdrawal of the rejection under 35 U.S.C. § 112, first paragraph is respectfully requested.

Rejection under 35 U.S.C. § 112, Second Paragraph

Claim 41 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner stated that the complimentary strand of DNA does not encode the protein of the gene it complements.

It is applicants' position that the term "cDNA" refers to DNA molecules that are synthesized enzymatically (*e.g.*, using the enzyme reverse transcriptase) from an RNA or mRNA template. According to Dorland's Illustrated Medical Dictionary, 29th Edition, W.B. Saunders Company (2000), the term "cDNA" means DNA transcribed from a specific RNA through the reaction of the enzyme reverse transcriptase. Copies of pages 303 and 538 from Dorlands is enclosed herewith. Applicants believe they are entitled to the "cDNA" language in claim 41 because they are trying to protect nucleic acids that are derived from RNA.

Contrary to the Examiner's assertion, applicants are not trying to claim a nucleic acid that is complementary to a nucleic acid molecule that encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 11.

Applicants submit that claim 41 satisfies the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 39, 40 and 43 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Leib *et al.*, "Restriction Endonuclease Patterns of Some European and American Isolates of Avian Infectious Laryngotracheitis Virus", *Avian Diseases*, vol. 30, pp. 835-837 (1986) ("Leib"). Applicants respectfully traverse the above rejection and request reconsideration of claims 39, 40 and 43.

Leib refers to eleven isolates of infectious laryngotracheitis virus that were compared by restriction endonuclease analysis. The restriction enzyme digest results of Leib allegedly demonstrate that differences exist among ILTV isolates from different regions.

Amended claim 39, and claims 40 and 43, which depend from claim 39, now recite an isolated nucleic acid molecule encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 11. Leib does not even mention glycoprotein D, let alone an amino acid or a nucleic acid sequence of glycoprotein D. Furthermore, Leib does not disclose the amino acid sequence defined by SEQ ID NO: 11. Therefore, applicants submit that the claims, as amended, reciting SEQ ID NO: 11 are novel in light of Leib. Accordingly, withdrawal of the rejection of claims 39, 40 and 43 under 35 U.S.C. § 102(b) in view of Leib is respectfully requested.

Claims 39, 40, 43, 45, 46, 48 and 49 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,123,949 ("the '949 patent"). Specifically, the Examiner stated that the '949 patent teaches the claimed nucleic acid in SEQ ID NO: 19.

The '949 patent refers to a recombinant fowlpox virus, a vaccine useful for immunizing an animal against fowlpox virus, and a method of immunizing an animal against fowlpox virus. In addition, the '949 patent refers to a nucleic acid and polypeptide sequence for an ILTV glycoprotein D in SEQ ID NOs: 19 and 20. The '949 patent lists two inventors: Mark D. Cochran and David E. Junker.

The present application was filed in the name of two inventors: Martha A. Wild and Mark D. Cochran. Independent claims 39 and 45 of the present application have been amended and are now directed to nucleic acids encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 11.

SEQ ID NO: 20 in the '949 patent is identical to SEQ ID NO: 11 in the present application. However, the sequence information for ILTV gD disclosed in the '949 patent and claimed in the present application was invented by Mark D. Cochran and Martha A. Wild, and disclosed to David E. Junker while all three were working at Syntro Corporation. Therefore, each applicant submits herewith a declaration under 37 C.F.R. § 1.132 in order to overcome the rejection of claims 39, 40, 43, 45, 46, 48 and 49, as amended, under 35 U.S.C. § 102(e). It is applicants' position that the '949 patent describes applicants' own work and does not constitute prior art against the presently pending claims. M.P.E.P. § 2136.05. Accordingly, withdrawal of the rejection of claims 39, 40, 43, 45, 46, 48 and 49, as amended, under 35 U.S.C. § 102(e) is respectfully requested.

Claims 39, 40, 43, 45-47 and 50 stand rejected under 35 U.S.C. § 102(e) as being anticiptated by United States Patent No. 5,928,648 ("the '648 patent"). Specifically, the

Examiner stated that the '648 patent teaches a recombinant herpes virus of turkeys (HVT) having a gene inserted into the virus that encodes an ILTV gD. Applicants respectfully traverse the above rejection and request reconsideration of claims 39, 40, 43, 45-47 and 50, as amended.

The '648 patent relates to a recombinant HVT comprising foreign DNA inserted into a site in the HVT genome which is not essential for replication of the virus.

Independent claims 39 and 45, and the claims that depend therefrom, have been amended to recite nucleic acids encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 11. Although the '648 patent relates to an embodiment of HVT that contains an ILTV gD nucleic acid sequence, it does not disclose neither a nucleic acid nor amino acid sequence for ILTV gD. Furthermore, the '648 patent does not disclose the amino acid sequence defined by SEQ ID NO: 11. Therefore, applicants submit that the claims, as amended, are novel in light of the '648 patent. Accordingly, withdrawal of the rejection of claims 39, 40, 43, 45-47 and 50 under 35 U.S.C. § 102(e) in view of the '648 patent is respectfully requested.

<u>Rejection under 35 U.S.C. § 103(a)</u>

Claims 41 and 42 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of United States Patent No. 6,123,949 ("the '949 patent"). Specifically, the Examiner stated that both the complementary strand and the RNA are obvious from the disclosure in the '949 patent of the nucleic acid encoding gD.

Applicants point out that for the reasons stated above, the '949 patent does not constitute prior art against the presently pending claims. Accordingly, withdrawal of the rejection of claims 41 and 42 in view of the '949 patent is respectfully requested.

CONCLUSION

Applicants submit that the claims are enabled, adequately described and definite. In addition, applicants submit that the cited references do not constitute prior art against the claims and do not either disclose or suggest the claimed nucleic acids. Accordingly, reconsideration of the rejections and allowance of the claims at an early date are earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

Respectfully submitted,

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Claims 1-38 and 44 have been canceled.

The pending claims have been amended as follows:

39. (Amended) An isolated nucleic acid molecule encoding [an infectious laryngotracheitis virus glycoprotein D] a polypeptide comprising the amino acid sequence of SEQ ID NO: 11.

40. (Restated) The isolated nucleic acid molecule of claim 39, wherein the isolated nucleic acid molecule is genomic DNA.

41. (Restated) The isolated nucleic acid molecule of claim 39, wherein the isolated nucleic acid molecule is cDNA.

42. (Amended) An isolated RNA molecule [which is] derived from the isolated nucleic acid molecule of claim 39.

43. (Restated) The isolated nucleic acid molecule of claim 39, operatively linked to a regulatory element.

[87] 45. (Amended) A recombinant DNA molecule [comprising DNA] encoding [infectious laryngotracheitis virus glycoprotein D] a polypeptide comprising the amino acid sequence of SEQ ID NO: 11.

[88] 46. (Amended) The recombinant DNA molecule of claim [87] 45, wherein the DNA [encoding the infectious laryngotracheitis virus glycoprotein D] comprises genomic DNA.

[89] 47. (Amended) The recombinant DNA molecule of claim [87] 45, wherein the DNA [encoding the infectious laryngotracheitis virus glycoprotein D] is operatively linked to a regulatory element.

[90] 48. (Amended) The recombinant DNA molecule of claim [87] 45, wherein the recombinant DNA molecule further comprises DNA encoding infectious laryngotracheitis virus glycoprotein I.

[91] 49. (Amended) A host cell comprising the recombinant DNA molecule of claim [87] 45.

[92] 50. (Amended) A host cell comprising the recombinant DNA molecule of claim [90] 48.